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PRAXAIR, INC.
LAW DEPARTMENT - M1 557
39 OLD RIDGEBURY ROAD
DANBURY, CT 06810-5113

EXAMINER	
STONER, KILEY SHAWN	
ART UNIT	PAPER NUMBER
1735	

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11/26/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Continuation of box 11:

The applicant argues that claims 1-11 and 13-18 stand rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement, purportedly for not having explicit support in the original disclosure on the coefficient of thermal expansion, a feature introduced in the previous amendment. This position is improper for the following reasons. As set forth in MPEP §2163.04, a description as filed is presumed to be adequate, unless and until sufficient evidence or reasons to the contrary has been presented by the Examiner to rebut the presumption. See *In re Marzocchi,* 439 F.2d 220, 224 (CCPA 1971). The Examiner has the initial burden of presenting by a preponderance of evidence why a person skilled in the art would not recognize in an applicant's disclosure a description of the invention defined by the claims. *In re Wertheim,* 541 F.2d, 257, 263. Here, the materials of the target and the backing plate are clearly and explicitly disclosed in applicants' specification. Moreover, the coefficient of thermal expansion for these materials are known to those skilled in the art as substantiated in the applicants' submission with the amendment of May 21, 2010. Thus, the record taken as whole, clearly demonstrates that the written description requirement is provided, and the burden of proof has not been met. Withdrawal of this rejection is respectfully requested.

The examiner respectfully disagrees with the applicant. The original disclosure does not mention the phrase "similar coefficients of thermal expansion". Paragraph [0018] of the specification provides a laundry list of materials for the backing plate and sputter target; however, the specification does not quantify the materials of the backing

plate and sputter target as having "similar coefficients of thermal expansion". By claiming the materials of the backing plate and the sputter target as having "similar coefficients of thermal expansion" the applicant is broadening the scope of coverage to other materials that are not supported by the original disclosure. Furthermore, there is nothing in the original disclosure that positively defines the materials listed in paragraph [0018] as being materials of "similar coefficients of thermal expansion". Thus, the applicant's submission received on May 21, 2010 does not make up for the shortcomings of the original disclosure. It should also be noted that the applicant has not provided the examiner with a location in the original disclosure as to where the newly added limitation is found in the original disclosure. Instead the applicant is relying on the submission to improperly supplement the original disclosure. If the applicant is intending to claim the materials of paragraph [0018], then the examiner recommends that the applicant explicitly claim those materials.

The applicant also argues that claims 1-11 and 13-18 and stand rejected under 35 U.S.C. §112, second paragraph, for failing to point out and distinctly claim the subject matter which applicant regards as the invention because the term "similar" is allegedly indefinite for not providing the requisite degree of similarity. This position is improper, as the degree of similarity between the coefficients of thermal expansion has been demonstrated in applicants' submission of May 21, 2010 as having overlapping ranges. Thus, one of ordinary skill in the art would be apprized by the meaning of the term "similar" in this context. Accordingly, withdrawal of this rejection is requested.

Once again the applicant is improperly supplementing the original disclosure with the submission of May 21, 2010. Without concisely explaining the limitation "similar coefficients of thermal expansion" in the specification it is impossible for one of ordinary skill in the art to determine what actually constitutes "similar coefficients of thermal expansion". In other words, since the metes and bounds of the limitation are unclear one of ordinary skill in the art is unable to quantify what material combinations meet the limitation. Thus, the scope of the "similar coefficients of thermal expansion" limitation is indefinite.

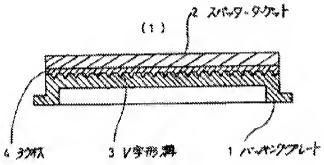
The applicant further argues that claims 1-11, 13-18 and 20 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Ogata et al. (Japanese Patent Document No. 02043362 A) and applicants alleged admitted prior art in view of Shindo et al. (U.S. Patent No. 6,485,542 B2). The claims, cannot be rejected over these documents for the following reasons. Ogata et at. pertains to a method of joining a sputter target and a backing plate by a brazing material. Ogata et al., however, does not disclose the features of the present invention. For example, Ogata et al does not concern the uniform thickness of a target assembly in order to achieve optimal thickness and sheet resistance uniformity of sputtered films. In this regard, the presently claimed invention recites the spaced apart ridges machined into the backing plate and segmented to accommodate the solder supplied between the backing plate and the sputter target which is made of ferromagnetic materials. Thus, the sputtering target and the backing plate have similar coefficients of thermal expansion, and the ridges act as spacers to ensure a substantially uniform solder thickness. By comparison, Ogata et al.

simply provides channels (e.g., grooves or slots) in the bonding surface of the backing plate, which appear to extend over the entire surface of the backing plate for the purpose of minimizing warping that occurs during bonding of materials having a large difference in thermal expansion. The Examiner simply takes the position that the ridges of Ogata et al., inherently act as spacers/standoffs for the supply of solder. See page 7 of the Official Action. This position is improper. The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3 d 1531, 1534 (Fed. Cir. 1993). Therefore, *a prima facie* case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. *In re Best* 562 F2d 1252, 1255. First, and foremost the Ogata et al. does not even recognize the issue which the present invention address. Ogata et al. concerns warpage of the target assembly, not spacers which affect the uniformity of the bond between materials having similar thermal expansion. In this regard, the Examiner's attention is drawn to the materials bonded in Ogata et al. They are rare earth materials bonded to copper. These materials have a large difference in thermal expansion, and the bonding would create warping, but for the channels formed in the backing plate. By comparison, in the present invention it is a solder material which unites the backing plate and the sputtering target (e.g., materials having a similar thermal expansion) and leads to the use of an effective uniform thickness solder bonded interface. Clearly, Ogata et al. does not disclose raised protrusions in the form of segmented space-apart ridges on the bonding surface of the backing plate to accommodate the solder and

provide a uniform thickness interface. Neither the structure nor the processes of making the structure are the same as those suggested by Ogata et al. The alleged admitted prior art has been applied for teaching machining of grooves. Nonetheless, the alleged admitted prior art does not cure the deficiencies discussed in Ogata et al. nor would it be combined with the teachings of Ogata et al., but for the teaching in the present application.

The examiner respectfully disagrees as the applicant has failed to provide a persuasive argument or evidence that the ridges of Ogata will not act as stand-offs during the bonding process. Thus, the examiner maintains the position that the ridges of Ogata inherently act as spacers/standoffs for the supply of soldering material between the backing plate and the sputter target. Please note the similarities between Figure 1 of Ogata and Figure 2 of the instant application. The structure of the ridges of Ogata is so similar to that of the instant application that one of ordinary skill in the art would expect the ridges of Ogata and the instant application to function in the same manner. Thus, even through Ogata explicitly teaches using ridges to control warpage, the ridges of Ogata will also aid in forming a uniform thickness solder bonded interface.

OGATA:



INSTANT APPLICATION:

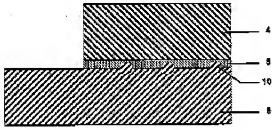


Fig. 2